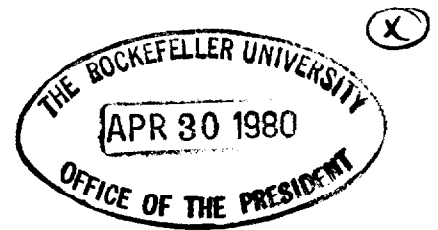


MILBANK MEMORIAL FUND

1 EAST 75TH STREET
NEW YORK, NEW YORK 10021



ROBERT H. EBERT, M.D.
PRESIDENT



[212] 570-4806

April 28, 1980

Joshua Lederberg, M.D.
President
The Rockefeller University
1230 York Avenue
New York, N.Y. 10021

Dear Josh:

It may be that the Medicare - Medicaid legislation in the 1960's has had a more profound impact on health outcomes for U.S. citizens than any specific biomedical innovation. Medicaid has certainly improved access to prenatal and obstetrical care as well as pediatric care for the poor. I suspect that the fall in the overall infant mortality rate from 24.7 deaths per 1,000 live births in 1965 to 14.1 in 1977 and more specifically among blacks, a fall from 40.7 in 1965 to 23.6 in 1977 can be attributed in large part to better access to medical care. Certainly the quality of care for the elderly has also improved. If one considers that mothers and children and the elderly are probably the groups which benefit the most from medical care this was an innovative piece of legislation. There has been so much attention paid to the price tag that little thought has been given to the social benefits. I wonder if the food stamp program may not be another social innovation which has had an important impact on health -- particularly among the young.

Of the biomedical innovations which you listed (and some which you did not), I would list in the following -- and quite arbitrary -- order of importance:

- 1.- Vaccines -- I suspect that the polio vaccine and measles vaccine have had an important impact not only by reducing the incidence of polio and measles, but also by reducing the great fear associated with polio epidemics in the past.
- 2.- The management of hypertension has perhaps the greatest potential for reducing the incidence of stroke and one type of renal failure. We are beginning to see the effects.
- 3.- The introduction of isoniazid in 1952 made possible the ambulatory treatment of tuberculosis, and resulted in the closing of tuberculosis sanatoria throughout the country. This drug profoundly altered the medical profession's attitude toward the disease which in its extreme considered tuberculosis as "a chronically relapsing disease the only release from which is death."
(attributed to the Trudeau Sanatorium)

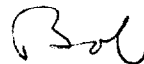
Joshua Lederberg, M.D.

- 4.- Psychotropic medications particularly the antipsychotic drugs beginning with chlorpromazine, had a profound impact on the rates of hospitalization in mental hospitals.
- 5.- I would prefer to say that family planning which utilizes oral contraceptives, rather than the pill itself, has had an important impact on health. The so-called pill has probably had a greater social impact than one directly on health.
- 6.- The management of fluid volume electrolytes and pH as well as infection in acute illness has had its greatest impact on individuals with underlying chronic illness. As you know, it has also caused some ethical dilemmas.
- 7.- You might wish to consider the cumulation of the technology of renal dialysis together with the social legislation which authorized payment for dialysis. I do not have the figures but the number of people on chronic dialysis is large.
- 8.- Perhaps cardiac surgery if one includes valve repair with bypass surgery.
- 9.- There has been a steady fall in the death rates from ischemic heart disease in all age groups between 1968-1977. Is it possible that diet has had something to do with this? Is it also possible that treatment is better?

Hope all of this helps.

With best wishes.

Sincerely,



Robert H. Ebert, M.D.

RHE:baj